

Amendments to the Claims:

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-92 (canceled)

Claim 93 (currently amended): A method of identifying a compound or agent that binds an SV2 protein comprising;

- a) obtaining a cell-free or membrane-free SV2 protein ~~or fragment thereof~~ comprising a levetiracetam binding site (LBS);
- b) incubating the SV2 protein ~~or fragment thereof~~ with a compound or agent; and
- c) determining whether the compound or agent binds the SV2 protein ~~or fragment thereof~~ by comparing with binding of LEV to the SV2 protein.

Claim 94 (previously presented): The method of claim 93, wherein the compound or agent is an analog or derivative of levetiracetam.

Claim 95 (previously presented): The method of claim 94, wherein the analog or derivative of levetiracetam is selected from the group consisting of N-alkylated 2-oxo-pyrrolidine derivatives, N-alkylated 2-oxo-piperidinyll derivatives, and N-alkylated 2-oxo-azepanyll derivatives.

Claim 96 (previously presented): The method of claim 93, wherein the compound or agent competes with levetiracetam or an analog or derivative thereof for binding to the levetiracetam binding site.

Claim 97 (previously presented): The method of claim 93, wherein the compound or agent is an anti-SV2 antibody or fragment thereof.

Claim 98 (currently amended): The method of claim 97, wherein the anti-SV2 antibody or fragment thereof binds to the levetiracetam binding site of SV2 protein ~~or fragment thereof~~.

Claim 99 (previously presented): The method of claim 97, wherein the anti-SV2 antibody or fragment thereof is selected from the group consisting of a polyclonal antibody and a monoclonal antibody.

Claim 100 (previously presented): The method of claim 99, wherein the antibody fragment is selected from the group consisting of an Fab fragment, Fab' fragment, F(ab')₂ fragment and an scFv fragment.

Claim 101 (previously presented): The method of claim 99, wherein the monoclonal antibody is selected from the group consisting of a chimeric antibody, a humanized antibody, and a human antibody.

Claim 102 (currently amended): The method of claim 93, wherein the SV2 protein is an SV2A protein, an SV2B protein, or an SV2C protein.

Claims 103-138 (canceled)

Claim 139 (currently amended): A method of identifying a compound or agent useful for the treatment of a neurological ~~or endocrinological~~ disorder, comprising:

a) obtaining a cell-free or membrane-free SV2 protein ~~or fragment thereof~~ comprising a levetiracetam binding site (LBS);

b) incubating the SV2 protein ~~or fragment thereof~~ to with the compound or agent and levetiracetam or an analog or derivative thereof that binds ~~the~~ an LBS on a SV2 protein; and

c) determining if the binding of levetiracetam or an analog or derivative thereof to the protein is inhibited by the compound or agent, thereby identifying a compound or agent useful for the treatment of a neurological disorder; wherein the neurological disorder is selected from the group consisting of epilepsy, epileptogenesis, seizure disorders, convulsions, withdrawal

seizures, tics, movement disorders, tremor, bipolar disorder, mania, migraine, and chronic or neuropathic pain.

Claim 140 (previously presented): The method of claim 139, wherein the analog of levetiracetam is (2S)-2-[4-(3-azidophenyl)-2-oxopyrrolidin-1-yl]butanamide.

Claim 141 (currently amended): The method of claim 139, wherein the SV2 protein or ~~fragment thereof~~ is purified.

Claim 142 (currently amended): The method of claim 139, wherein the SV2 protein is ~~human~~ an SV2A protein, an SV2B protein, or an SV2C protein.

Claim 143 (canceled)

Claim 144 (currently amended): The method of claim 139, wherein the SV2 protein or ~~fragment thereof~~ is immobilized.

Claim 145 (currently amended): The method of claim 139, wherein the SV2 protein or ~~fragment thereof~~ is expressed on a transformed host cell.

Claim 146 (previously presented): The method of claim 139, wherein the levetiracetam or an analog or derivative thereof is directly or indirectly labeled.

Claim 147 (previously presented): The method of claim 146, wherein the label is a radiolabel.

Claim 148 (previously presented): The method of claim 147, wherein the radiolabel is ³H.

Claim 149 (previously presented): The method of claim 146, wherein the label is a fluorescent label.

Claim 150 (previously presented): The method of claim 146, wherein the label is an enzyme.

Claim 151 (currently amended): The method of claim 139, wherein the SV2 protein ~~or fragment thereof~~ is incubated with the levetiracetam or an analog or derivative prior to addition of the agent.

Claim 152 (currently amended): The method of claim 139, wherein the SV2 protein ~~or fragment thereof~~ is incubated with the levetiracetam or an analog or derivative after addition of the agent.

Claim 153 (currently amended): The method of claim 139, wherein the SV2 protein ~~or fragment thereof~~ is incubated with the levetiracetam or an analog or derivative concurrent with the agent.

Claim 154 (currently amended): The method of claim 139, wherein the SV2 protein ~~or fragment thereof~~ is incubated with levetiracetam.

Claim 155 (canceled):

Claim 156 (currently amended): A method of identifying an agent useful for the treatment of a neurological ~~or endocrinological~~ disorder, comprising:

- a) obtaining a cell-free or membrane-free SV2 protein ~~or fragment thereof~~ comprising a levetiracetam binding site (LBS);
- b) incubating the SV2 protein ~~or fragment thereof~~ to with the agent;
- c) incubating the SV2 protein ~~or fragment thereof~~ and agent with (2S)-2-[4-(3-azidophenyl)-2-oxopyrrolidin-1-yl]butanamide; and

d) determining if the binding of (2S)-2-[4-(3-azidophenyl)-2-oxopyrrolidin-1-yl]butanamide to the protein is inhibited by the agent, thereby identifying an agent useful for the treatment of a neurological ~~or endocrinological~~ disorder; wherein the neurological disorder is selected from the group consisting of epilepsy, epileptogenesis, seizure disorders, convulsions, withdrawal seizures, tics, movement disorders, tremor, bipolar disorder, mania, migraine, and chronic or neuropathic pain.

Claims 157-173 (canceled)

Claim 174 (new): The method of claim 93, wherein the SV2 protein is a human SV2 protein.

Claim 175 (new): The method of claim 174, wherein the SV2 protein is SV2A protein comprising SEQ ID NO: 2, SV2B protein comprising SEQ ID NO: 4, or SV2C protein comprises SEQ ID NO: 6.

Claim 176 (new): The method of claim 93, wherein the SV2 protein comprises conservative amino acid substitutions.

Claim 177 (new): The method of claim 93, wherein the SV2 protein is a recombinantly expressed protein.

Claim 178 (new): The method of claim 177, wherein the SV2 protein is recombinantly expressed from COS cells.

Claim 179 (new): The method of claim 139, wherein the SV2 protein is a human SV2 protein.

Claim 180 (new): The method of claim 179, wherein the SV2 protein is SV2A protein comprising SEQ ID NO: 2, SV2B protein comprising SEQ ID NO: 4, or SV2C protein comprises SEQ ID NO: 6.

Claim 181 (new): The method of claim 139, wherein the SV2 protein comprises conservative amino acid substitutions.

Claim 182 (new): The method of claim 139, wherein the SV2 protein is a recombinant protein.

Claim 183 (new): The method of claim 182, wherein the SV2 protein is recombinantly expressed from COS cells.

Claim 184 (new): The method of claim 156, wherein the SV2 protein is an SV2 protein, an SV2B protein, or an SV2C protein.

Claim 185 (new): The method of claim 156, wherein the SV2 protein is a human SV2 protein.

Claim 186 (new): The method of claim 185, wherein the SV2 protein is SV2A protein comprising SEQ ID NO: 2, SV2B protein comprising SEQ ID NO: 4, or SV2C protein comprises SEQ ID NO: 6.

Claim 187 (new): The method of claim 156, wherein the SV2 protein comprises conservative amino acid substitutions.

Claim 188 (new): The method of claim 156, wherein the SV2 protein is a recombinant protein.

Claim 189 (new): The method of claim 188, wherein the SV2 protein is recombinantly expressed from COS cells.